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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,598	09/14/2000	Satoshi Nakajima	41020.P001	8929

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EXAMINER

BASOM, BLAINE T

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,598

Applicant(s)

NAKAJIMA, SATOSHI

Examiner

Blaine Basom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it recites, almost verbatim, the limitations recited in the claims of the present application. Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper language and format for an abstract of the disclosure:

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claims 1, 7, 9, 10, 11, 25, 27, 37, 40, and 41 are objected to because of the following informalities: In claims 1, 7, 9, 10, and 11, "provisioning user interface" is considered grammatically improper. Claim 7 further comprises grammatical errors, such as "an user interface," "withsaid," and "forsaid." Claims 11, 37, and 41 also recite "an user interface," which is grammatically incorrect. Claims 25 and 40 each recite "a next display state for the user

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interface based on a user's interface with a portion of the first instantiation of the user interface."

In this case, "a next display state for the user interface based on a user's interaction with a portion of the first instantiation of the user interface," like recited in claim 10, is considered more appropriate. In claim 27, the phrase "to transmitting" is grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 13, 14, 23, 28, 29, 38, 43, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 8, 23, and 38, "said first/second instantiation" is considered indefinite, as it is unclear whether "said first/second instantiation" denotes both the first and second instantiation, or one of the first and second instantiations. By similar reasoning, the "first/second plurality of display cell definitions," the "first/second plurality of display cells," and the "first/second plurality of state transition rules," which are recited in claims 13, 14, 28, 29, 43, and 44, are also considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 10-11, 13-18, 21-22, 25-26, 28-33, 36-37, 40-41, and 43-44 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,178,432, which is attributed to Cook et al. (and hereafter referred to as “Cook”). In general, Cook discusses interactive web pages (see column 1, lines 5-9). Cooks notes that with conventional web pages design, it is not possible for the end user to change the appearance of a web page; instead the user is limited to selecting links which cause different web pages to be displayed (see column 1, lines 30-55). Cooks attempts to overcome this limitation via interactive web page “objects,” which provide dynamic web-based user interfaces without the need to continually download web pages (see column 2, line 51 – column 14). Such interactive objects are considered “cells,” like that of the present application. Consequently, Cook is considered to present a method, like that of claim 1, which is for provisioning a user interface comprised of such cells.

Specifically regarding claims 1 and 2, the interactive objects described by Cook are each generated according to its associated definition within a “hierarchical structured object list,” which specifies the constituent contents of the object, and its functionality (for example, see figure 3B, and its associated description in column 7, line 21 – column 9, line 53). Each object may each exist in one of a plurality of states, such as being in a visible state or in a hidden state;

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an object in a visible state is displayed, whereas an object in a hidden state is not (for example, see column 3, lines 15-20). In addition, the hierarchical structured object list defines one or more “behaviors” associated with each object; each behavior defining a relationship between an event, an action, and a target object (see column 3, lines 27-38). In response to the event, the particular action is performed on the target object, thus changing the state of the target object (see column 3, lines 27-38). For example, Cook discloses that in response to the user selection of an object, a second object may become visible in the user interface (see column 4, line 39-column 5, line 11). The set of behaviors associated with each object is consequently considered a “state transition rule,” like that recited in the claimed invention. Additionally, Cook discloses that upon retrieval of an interface comprised of such objects, the set of objects associated with the interface are initially downloaded from a server to the client computer, whereby each object is displayed according to its state, meaning it is either visible or hidden (for example, see column 10, lines 5-27). In response to the user interacting with a visible object, the client computer determines if any behaviors are associated with that object, and if so, uses these behaviors to ascertain which objects change state as a result of the user interaction (for example, see column 10, line 35 – column 11, line 40). The client computer thus determines a new display state for the user interface, and redraws the objects accordingly. Cook is therefore understood to teach determining, by a client computer, a current display state for the user interface in accordance with an object definition of an immediately preceding instantiation of the user interface with which a user interacted, the object definition including a state transition rule specifying the display state for the user interface in the event the user interacts with the object. The client computer provides a current instantiation of the user interface in accordance with a display state

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definition corresponding to this determined current display state, the display state definition including the object definitions for the one or more objects in the user interface.

As per claims 15 and 16, Cook discloses that the above-described objects are generated via an applet (see column 9, line 54 – column 11, line 40), which as known in the art, is implemented via programming instructions. Such an applet is consequently understood to comprise a first plurality of programming instructions, like that recited in claims 15 and 16. Additionally, it is understood that this applet may comprise a second plurality of programming instructions implementing at least one other product function, such as monitoring user interaction with the displayed objects (see column 9, lines 40-53; and column 10, lines 35-49). The applet of Cook is thus considered a product like that recited in claims 15 and 16.

Referring to claims 30 and 31, Cook discloses that the above-described method is implemented on a client computer comprising a storage medium and a processor coupled to the storage medium, the processor configured to execute programming instructions stored in the storage medium (for example, see column 7, lines 5-21). Such a computer implementing the above-described method is therefore considered a client device, like that recited in claims 30 and 31.

Concerning claims 3, 4, 17, 18, 32 and 33, the web-based user interface described by Cook may comprise a plurality of objects, each object composing a portion of the user interface (for example, see figure 3A, and its associated description in column 7, line 21 – column 9, line 53). Each object is generated according to its associated definition within a “hierarchical structured object list,” which specifies the constituent contents of the object, and its behaviors, as is described above. Consequently, Cook is considered to teach generating a first portion of the

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current instantiation of the user interface in accordance with a first object definition for a first object of the user interface, the first object definition specifying constituting contents of the first object of the user interface. Since two or more objects may be simultaneously displayed in the user interface, Cook is also considered to teach generating a second portion of the current instantiation of the user interface in accordance with a second object definition for a second object of the user interface, the second object definition specifying constituting contents of the second object of the user interface. Specifically regarding claims 17 and 18, it is understood that the first plurality of programming instructions described above in the rejection for claims 15 and 16 implement such teachings. Similarly regarding claims 32 and 33, it is understood that the programming instructions described above in the rejection for claims 30 and 31 implement these teachings.

In reference to claim 21, Cook notes that a browser is implemented to receive and execute an applet (see column 6, lines 22-45), which as described above, comprises a first and second plurality of programming instructions, like those expressed in claim 15. Such a browser is thus considered a product like that recited in claim 20.

Regarding claim 36, it is understood that the above-described method of Cook may be implemented on any type of client computer having a browser for receiving web pages and running java applets (for example, see column 6, lines 24-45). Consequently, it is understood that such a client computer may be a wireless telephone, a palm sized computer device, or a notebook sized computing device, which are all well-known computers capable of having such a browser.

Referring to claims 6, 20, and 35, the client computer determines a current display state for the user interface in response to user interaction with an object of the display state, specifically by determining if any behaviors are associated with that object, and if so, using these behaviors to ascertain which objects change state as a result of the user interaction, as is described above in the rejection for claims 1 and 2. A current display state for the user interface is thus based on the individual display states of the plurality of objects associated with the interface. Consequently, the above-described display state for the interface is considered “multi-dimensional,” like recited in claims 6, 20, and 35.

As per claim 7, Cook presents a method, wherein a first portion of a first instantiation of a user interface is generated by a client computer in accordance with an object definition for an object of the user interface, the object definition specifying the constituting contents of the object, as is described above in the rejection for claims 3 and 4. Cook discloses that this object may exist in various instantiations of the user interface (for example, see figure 3A, and its associated description in column 7, line 21 – column 9, line 53). Consequently, Cook is further considered to teach generating a second portion of a second instantiation of the user interface in accordance with the object definition for the object, the object definition specifying constituting contents of the object for the second instantiation of the user interface.

As per claim 22, Cook discloses that the objects described in the previous paragraph are generated via an applet (see column 9, line 54 – column 11, line 40), which as known in the art, is implemented via programming instructions. Such an applet is consequently understood to comprise a first plurality of programming instructions, like that recited in claim 22.

Additionally, it is understood that this applet may comprise a second plurality of programming

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instructions implementing at least one other product function, such as monitoring user interaction with the displayed objects (see column 9, lines 40-53; and column 10, lines 35-49). The applet of Cook is thus considered a product like that recited in claim 22.

Referring to claim 37, Cook discloses that the method described above in the rejection for claim 7 is implemented on a client computer comprising a storage medium and a processor coupled to the storage medium, whereby it is understood that the processor is configured to execute programming instructions stored in the storage medium (for example, see column 7, lines 5-21). Such a computer implementing the above-described method is therefore considered a client device, like that recited in claim 37.

With respect to claim 10, Cook teaches provisioning by a client computer a first instantiation of a user interface in accordance with a first one or more display state definitions, each display state definition corresponding to an object, like those described above (for example, see column 10, lines 5-27). The client computer determines a next display state for the user interface based on a user's interaction with a portion of the first instantiation of the user interface, and in accordance with the first one or more display state definitions, which include specifications for the state transition rules, referred to as "behaviors," in the event of user interactions (see column 10, line 35 – column 11, line 40). It is understood that the next instantiation of the user interface is thus provided in accordance with a second one or more display state definitions for the next display state.

As per claim 25, Cook discloses that the objects described in the previous paragraph are generated via an applet (see column 9, line 54 – column 11, line 40), which as known in the art, is implemented via programming instructions. Such an applet is consequently understood to

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comprise a first plurality of programming instructions, like that recited in claim 25.

Additionally, it is understood that this applet may comprise a second plurality of programming instructions implementing at least one other product function, such as monitoring user interaction with the displayed objects (see column 9, lines 40-53; and column 10, lines 35-49). The applet of Cook is thus considered a product like that recited in claim 25.

Referring to claim 40, Cook discloses that the method described above in the rejection for claim 10 is implemented on a client computer comprising a storage medium and a processor coupled to the storage medium, the processor configured to execute programming instructions stored in the storage medium (for example, see column 7, lines 5-21). Such a computer implementing the above-described method is therefore considered a client device, like that recited in claim 40.

Referring to claim 11, the interactive objects described by Cook are each generated according to its associated display state definition within a "hierarchical structured object list," the display state definitions specifying the constituting contents and functionality of each object of the user interface (for example, see figure 3B, and its associated description in column 7, line 21 – column 9, line 53). It is understood that such display state definitions are transmitted from a server to the client computer, in addition to the constituting contents of the objects, whereby the objects are displayed in an initial instantiation of the user interface (for example, see column 9, line 40 – column 10, line 27; and column 6, lines 22-45). Cook thus teaches transmitting by a server to a remote client computer a first one or more display state definitions, each display state definition specifying the constituting contents of an object in a first instantiation of a user interface, and whereby these constituting contents are transmitted from the server to the client

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computer. Cook further teaches that some of the objects which are transmitted may initially exist in a "hidden state," meaning that such objects are transmitted in advance, prior to any directive to display them (see column 10, lines 5-27). Such objects may be displayed in a subsequent instantiation of the user interface, the subsequent instantiation being generated in response to user interaction within the first instantiation of the user interface. For example, Cook discloses that in response to the user selection of a displayed object, a second object may become visible in the user interface (see column 4, line 39-column 5, line 11). Cook is therefore considered to teach transmitting further in advance by the server to the client computer, a second one or more display state definitions specifying constituting contents for a second plurality of objects of a second instantiation of a user interface to be rendered in response to a first user interaction with the first instantiation of the user interface, and transmitting in advance by the server to the client computer, the constituting contents for the second plurality of objects for rendering on the client computer in accordance with the second display state definition in the event the first user interaction occurs.

As per claims 26 and 41, Cook discloses that a server maintains and transmits the above-described objects (for example, see column 6, lines 22-45). Such a server implementing the method described in the previous paragraph is consequently considered to comprise a first and second plurality of programming instructions, like those recited in claim 26. Additionally, such a server is considered to comprise a storage medium and processor, like those expressed in claim 41.

Regarding claims 13, 14, 28, 29, 43, and 44, an initial instantiation of the web-based user interface described by Cook may initially comprise a plurality of objects (for example, see figure

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1A, and its associated description in column 4, line 39 – column 5, line 11), whereby a plurality of additional objects may be displayed in response to user interaction with this initial instantiation of the user interface (see column 10, line 35 – column 11, line 40). As described above, such objects are each associated with a definition specifying the constituting contents and state transition rules for the object, the state transition rules indicating display states to transition to in the event of user interaction with the object. Therefore, since the initial instantiation of the user interface may comprise a plurality of objects, and since a plurality of objects may be displayed in a second instantiation of the user interface, it is understood that each of the first and second sets of display state definitions recited in claims 11, 26, and 41 may comprise a plurality of display object definitions specifying the constituting contents and state transition rules for the first and second plurality of objects.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 8, 9, 12, 19, 23, 24, 27, 34, 38, 39, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent of Cook, which is described above, and also over U.S. Patent No. 6,222,537, which is attributed to Smith et al. (and hereafter referred to as “Smith”). As shown above, Cook presents a method like that of claims 1, 7, and 11, a product like that of

claims 15 and 22, a server like that of claims 26 and 41, and a client device like that of claims 30 and 37, whereby a client device provides an instantiation of a user interface in accordance with one or more object definitions, each definition corresponding to an object in the user interface. Similarly, and for the reasons described above, Cook is considered to teach a method, product, and client device for generating a first and second portion of a user interface, each portion being in accordance with a display object definition for an object of the interface, and whereby like recited in claims 9, 24, and 39, the object definition specifies constituting contents for the display object. Cook, however, does not explicitly disclose that a portion of the user interface is generated with constituting contents inherited from a pseudo instantiation of the user interface, as is expressed in each of claims 5, 8, 9, 12, 19, 23, 24, 27, 34, 38, 39, and 42.

Like Cook, Smith presents user interface objects, referred to as “controls,” which may be provided within web pages, and which may exist in one of a plurality of states (for example, see column 1, lines 50-62; and column 2, lines 32-45). Additionally like the objects of Cook, which are implemented via the Java programming language (for example, see column 6, lines 24-45 of Cook), the controls described by Smith are implemented via Java code (for example, see column 8, lines 33-39 of Smith). Regarding the claimed invention, Smith discloses that each control may inherit properties from a pseudo control, namely a “Control” component (for example, see column 8, line 50 – column 9, line 20). Smith thus teaches inheriting properties based on a pseudo instantiation of the user interface. The benefits of inheritance are well known in the programming realm.

Consequently, it would have been obvious to one of ordinary skill in the art, having the teachings of Cook and Smith before him at the time the invention was made, to modify the

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objects of Cook such that they inherit constituting contents from a pseudo object, as taught by Smith. It would have been advantageous to one of ordinary skill to utilize this combination, because such pseudo objects reduce the amount of code required to be written for each object, as is demonstrated by Smith.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. The applicant is required under 37 C.F.R. §1.111(C) to consider these references fully when responding to this action. The Takitani et al. U.S. Patent cited therein describes user interface components, which may exist in one of a plurality of states. The Adams et al. U.S. Patent presents a user interface comprised of a plurality of cells.

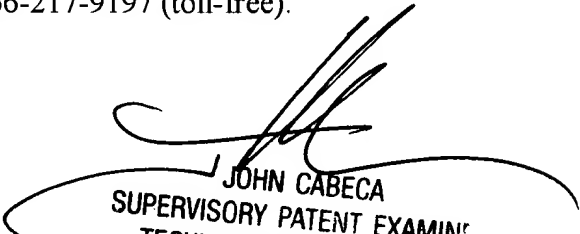
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btb



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